

REMARKS/ARGUMENTS

Claims 1-12 are pending. Claims 1, 2, and 4-12 have been amended. Support for all amended claims can be found in the specification, and no new matter has been added by these amendments.

Claims 1-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0135480 to Van Arsdale et. al (hereinafter "Van Arsdale") in view of U.S. Patent Application Publication No. 2003/0023758 to Yoshikawa et. al (hereinafter "Yoshikawa").

Reconsideration of the claims in view of the amendments and the following remarks is respectfully requested.

Rejections under 35 U.S.C. §103

The Office Action cites the combination of Van Arsdale and Yoshikawa to disclose or suggest each of the features recited in claims 1-12. Applicants have amended independent claims 1, 5, 6, and 10, and Applicants submit that amended claims 1, 5, 6, and 10 are allowable over Van Arsdale and Yoshikawa for at least the reasons provided herein.

Applicants submit that Van Arsdale discloses a method for converting data in a database from a current value to a different replacement value. The method receives information identifying a database data field to be updated and data including a current value and corresponding replacement value for replacing existing data in the identified data field. Van Arsdale, Abstract.

Applicants submit that Yoshikawa discloses an animated data converter provided in a server that converts frames of data managed by an animated data management section in to frame data adaptable in the terminal equipment. The server includes an animated data transmitting section that transmits animated data including the frame data to terminal equipment that displays the animated data in an animated display section. Yoshikawa, Abstract.

Applicants submit that the combination of Van Arsdale and Yoshikawa fails to suggest or disclose at least each element of independent claims 1, 5, 6, and 10. For example, claim 1 recites a data conversion method for converting table of a database, the method including the steps of:

executing, by a job execution engine of the data conversion server, the storage job to instruct the storage to copy the volume of the storage including the table based on the parameter table of the storage job; and

executing, by the job execution engine of the data conversion server, the data conversion server job to perform data conversion of the table included in the copied volume based on the parameter table of the data conversion server job. (Claim 1, emphasis added.)

The Office Action relies upon Van Arsdale to teach creating a copy of the original table and converting the data by clearing records of the original table and processing records of the copy table. Van Arsdale, Fig. 4, reference no. 406; and Figs. 5-6, reference nos. 508 and 603. Applicants submit, however, that Van Arsdale fails to teach at least "executing ... the storage job to instruct the storage to copy the volume of the storage including the table based on the parameter table of the storage job" as recited in claim amended claim 1 (emphasis added).

Van Arsdale describes creating a copy table and copying the contents of the original table into the copy table. Van Arsdale, paragraph 0115. Applicants submit that Van Arsdale, however, does not disclose copying the volume storing the table as recited in claim 1. Instead, Van Arsdale merely discloses creating copy table comprising the contents of the original table to be converted plus a row_id column that includes a unique row identifier. Van Arsdale, paragraph 0116. Van Arsdale is silent as to copying the entire volume on which the table to be converted.

Copying the volume storing the table as recited in claim 1 advantageously avoids a number of additional processing steps introduced by creating a copy table as described in Van Arsdale. For instance, in Van Arsdale an additional burden is placed at least on database 112 and processor 102 when creating the unique row identifiers stored in the row_id column of the copy table. Furthermore, the number of rows of data in the copy table must be compared to that of the original table to determine whether all of the rows of data have been copied, thus also placing an additional burden at least on database 112 and processor 102. Van Arsdale, paragraphs 0017-0018.

In contrast, Applicants' invention advantageously avoids this additional processing by copying the entire volume of the storage containing the table to be converted. Storage command execution part 111 of data conversion server 00 instructs copy processing part 131 of storage 130 to perform the copying of the volume. Applicant's specification, FIG. 1; and page 9, lines 15-17. Offloading the copying task to the storage thus advantageously decreases the I/O and CPU loads on data conversion server 00.

Applicants submit that Yoshikawa is also silent as to at least "executing ... the storage job to instruct the storage to copy the volume of the storage including the table based on the parameter table of the storage job" as recited in claim 1. Yoshikawa describes keyframe animation being stored on server 4f being converted and transmitted to terminal 2. See Yoshikawa, Fig. 12; and paragraph 0064. However, Yoshikawa is silent as to the data to be converted being stored in a database table and to copying the volume storing the database table. Accordingly, Van Arsdale and Yoshikawa, either alone or in combination, fail to disclose or suggest at least this limitation of independent claim 1.

Applicants further submit that the combination of Van Arsdale and Yoshikawa also fails to suggest or disclose at least creating a parameter table for the data conversion job and the storage job as recited in claim 1:

separating, by execution of a data conversion program of the data conversion server, a data conversion job used for data conversion into a data conversion server job for executing conversion processing on the data conversion server and a storage job for instructing a copy of a table on a volume of the storage, wherein the separating of the data conversion job into the data conversion server job and the storage job includes:

creating a parameter table of the data conversion server job by extracting and converting records from a parameter table of the data conversion job; and

creating a parameter table of the data storage job by extracting and converting records from the parameter table of the data conversion job and the table volume mapping information. (Claim 1, emphasis added).

The parameter table of the data conversion server job recited in claim 1 comprises fields to be converted by the data conversion server job. The data conversion server job uses the parameter table to identify which fields from the input fields from the input tables need to be converted, the rule to use for converting the data from each input field (stored in the contents of conversion column of the table), and an output table and field name for the converted data. See Applicants' specification as filed, Fig. 7.

The parameter table of the data storage job recited in claim 1 comprises a set of copy-from volumes, volumes which the data storage job will copy to the copy-to volume specified in the parameter table. The data storage job uses the parameter to identify which volumes storing tables to be converted need to be copied in order for the data conversion server job to perform the conversion. See Applicants' specification as filed, Fig. 8.

Applicants submit that Van Arsdale is silent as to creating parameter tables for the data server job and the storage job as recited in claim 1. Instead, Van Arsdale describes a user running a setup program that prompts the user enter the data conversion parameters, and the setup program stores the user entered configuration information in the *ds_values* values table. See Van Arsdale, paragraph 0193. Applicants submit, that even if, *arguendo*, the *ds_values* table of were the parameter table of data conversion job recited in claim 1, Van Arsdale is still silent as extracting and converting records from the parameter table of the data conversion job to create a parameter table for a data conversion server job and a storage job. At best, Van Arsdale describes the user-provided conversion parameters stored in *ds_values* being stored so that the user-provided conversion parameters can be viewed while the conversion process is running. See Van Arsdale, paragraph 0093.

Furthermore, Applicants submit that Yoshikawa is also silent as to creating parameter tables for the data server job and the storage job as recited in claim 1. As described above, the Yoshikawa discloses converting keyframe animation data to a format adapted for display on a particular terminal. Yoshikawa is silent as to a parameter table for a data conversion job. Applicants submit that even if, *arguendo*, the conversion rule tables of Yoshikawa (Figs. 13 and 14) were a parameter table for a data conversion job, Yoshikawa is still silent as to extracting and converting records from the parameter table of the data conversion job to create a parameter table for a data conversion server job and a storage job. Accordingly, Applicants submit that Van Arsdale and Yoshikawa, either alone or in combination, fail to suggest or disclose creating the parameter table of the data conversion server job and the parameter table for the data job as recited in claim 1.

Applicants further submit that the combination of Van Arsdale and Yoshikawa also fails to suggest or disclose at least separating a data conversion job into a data conversion server job and a storage job as recited in claim 1:

separating, by execution of a data conversion program of the data conversion server, a data conversion job used for data conversion into a data conversion server job for executing conversion processing on the data conversion server and a storage job for instructing a copy of a table on a volume of the storage (Claim 1, emphasis added).

The Office Action admits that Van Arsdale fails to teach this limitation of claim 1, and instead relies upon Yoshikawa to teach this limitation. Applicants submit, however, that Yoshikawa is silent as to splitting a data conversion job into a data conversion server job and a storage job as recited in claim 1.

Applicants submit that Yoshikawa merely discloses a data conversion job and does not disclose separating a data conversion job into a data conversion server job and a data storage job as recited in claim 1. Server 4f of Yoshikawa provides animation data to terminal 2. Before providing the animation data to terminal 2, server 4f converts the animation data to a format adapted for terminal 2. The animation data is provided by animated data management section 41 and is converted by data converter 51 of animated data converting section 42 of server 4f. Conversion rule management section 52 stores conversion tables for various terminal types that contain conversion rules for a particular terminal type. The conversion rules are used by the animated data converting section 52 to convert animated data received from animated data management section 41 to a format adapted for display on terminal 2. See Yoshikawa, Fig. 12 and paragraphs 0117-0120.

Accordingly, Applicants submit that Yoshikawa describes a data conversion job, but Yoshikawa fails to disclose a "storage job" as recited in claim 1. Yoshikawa is silent as to at least "executing ... the storage job to instruct the storage to copy the volume of the storage including the table based on the parameter table of the storage job" as recited in claim 1, where the table comprises data to be converted. The animated data in Yoshikawa is stored as ordered keyframe data. Yoshikawa does not describe this keyframe data as being stored in a table of a database. See Yoshikawa, paragraph 0064. As a result, no storage job is required in Yoshikawa to copy a database table or volume containing the database table. Therefore, Yoshikawa fails to suggest or disclose at least separating a data conversion job into a data conversion storage job and a data storage job as recited in claim 1.

Therefore, Applicants submit independent claim 1 is allowable, because Van Arsdale and Yoshikawa, either alone or in combination, fail to disclose at least the features of independent claim 1 described above. Furthermore, independent claims 5, 6 and 10 should be allowable for similar rationale as independent claim 1, and others. In addition, dependent claims 2-4, 7-9, 11 and 12 should also be allowable at least due to their dependence from independent claims 5, 6, and 10.

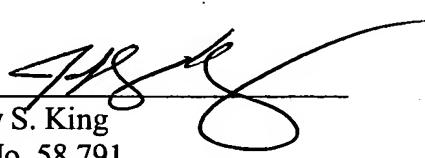
CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

Date: Feb. 9, 2007


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